

FIG. 1A

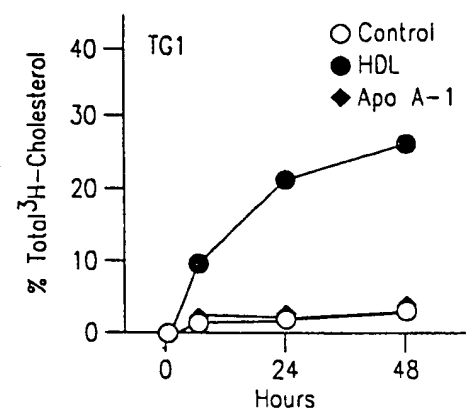


FIG. 1B

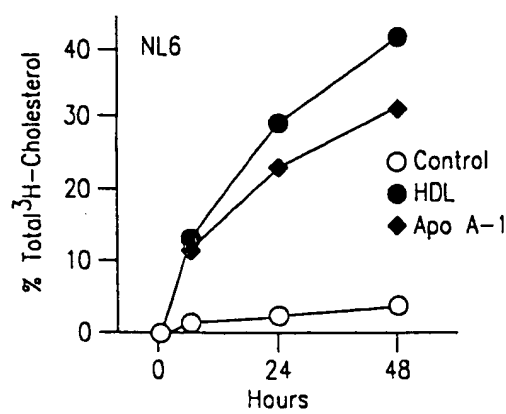


FIG. 1C

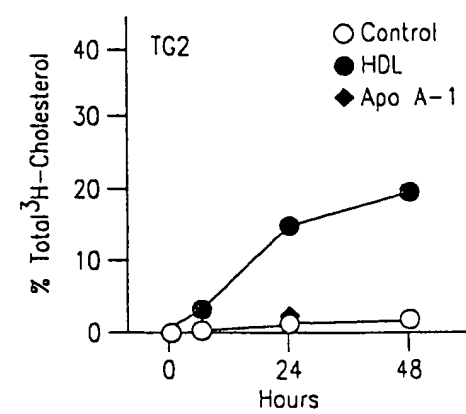


FIG. 1D

OIPE JC106
DEC 30 2002
TRADEMARK OFFICE

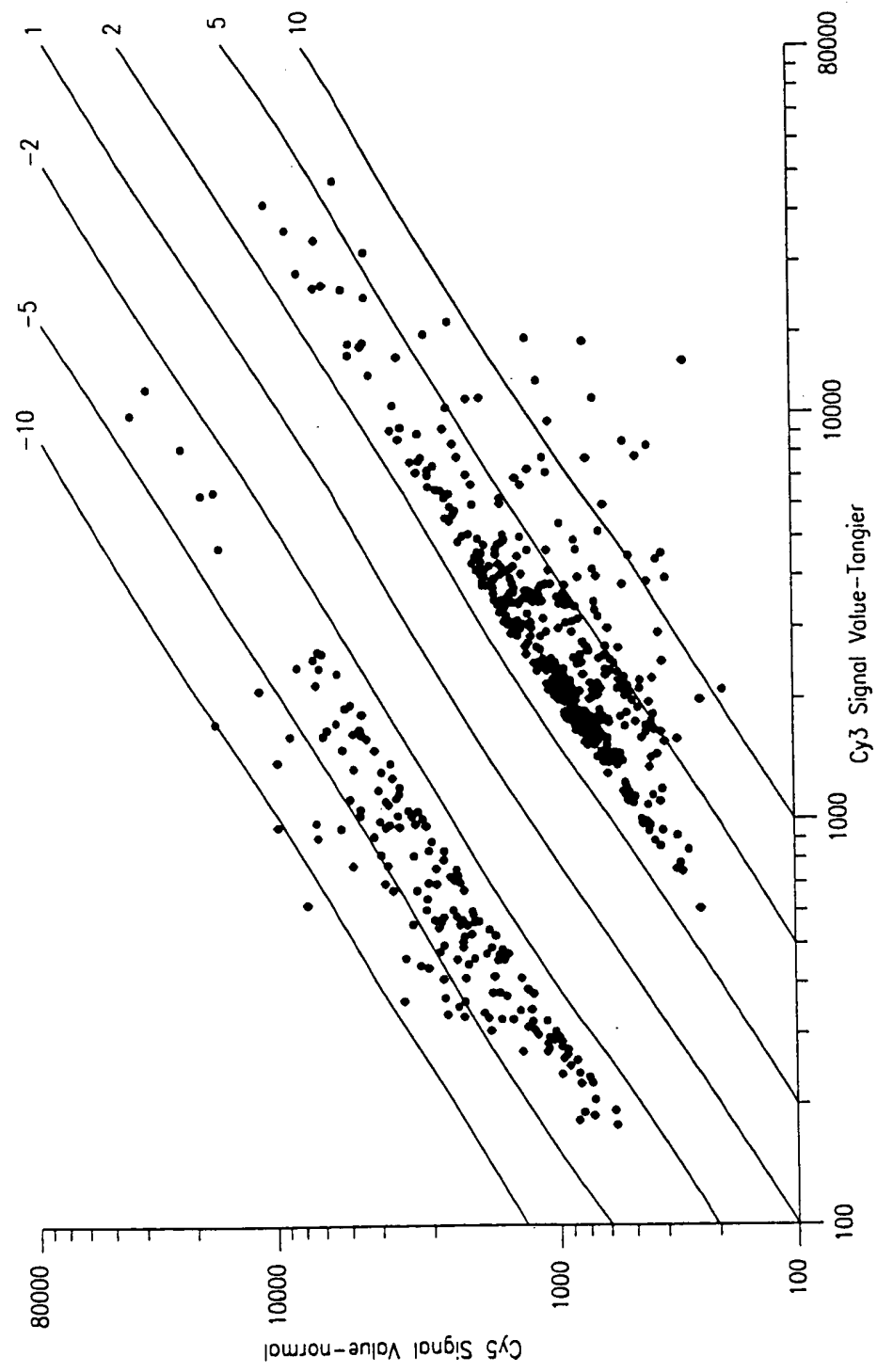


FIG. 2

OIPE JC105
DEC 30 2002
PATENT & TRADEMARK OFFICE

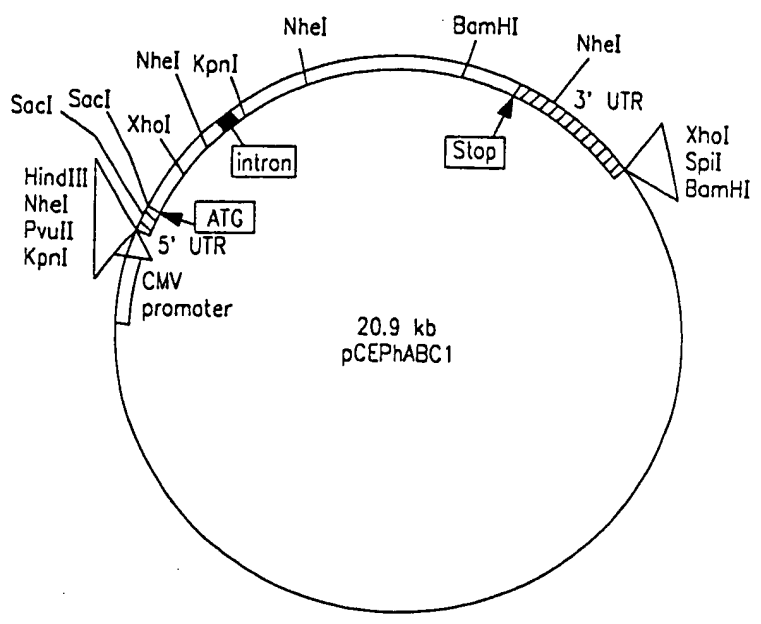


FIG. 3

CVT ABCA1 Gene Structure

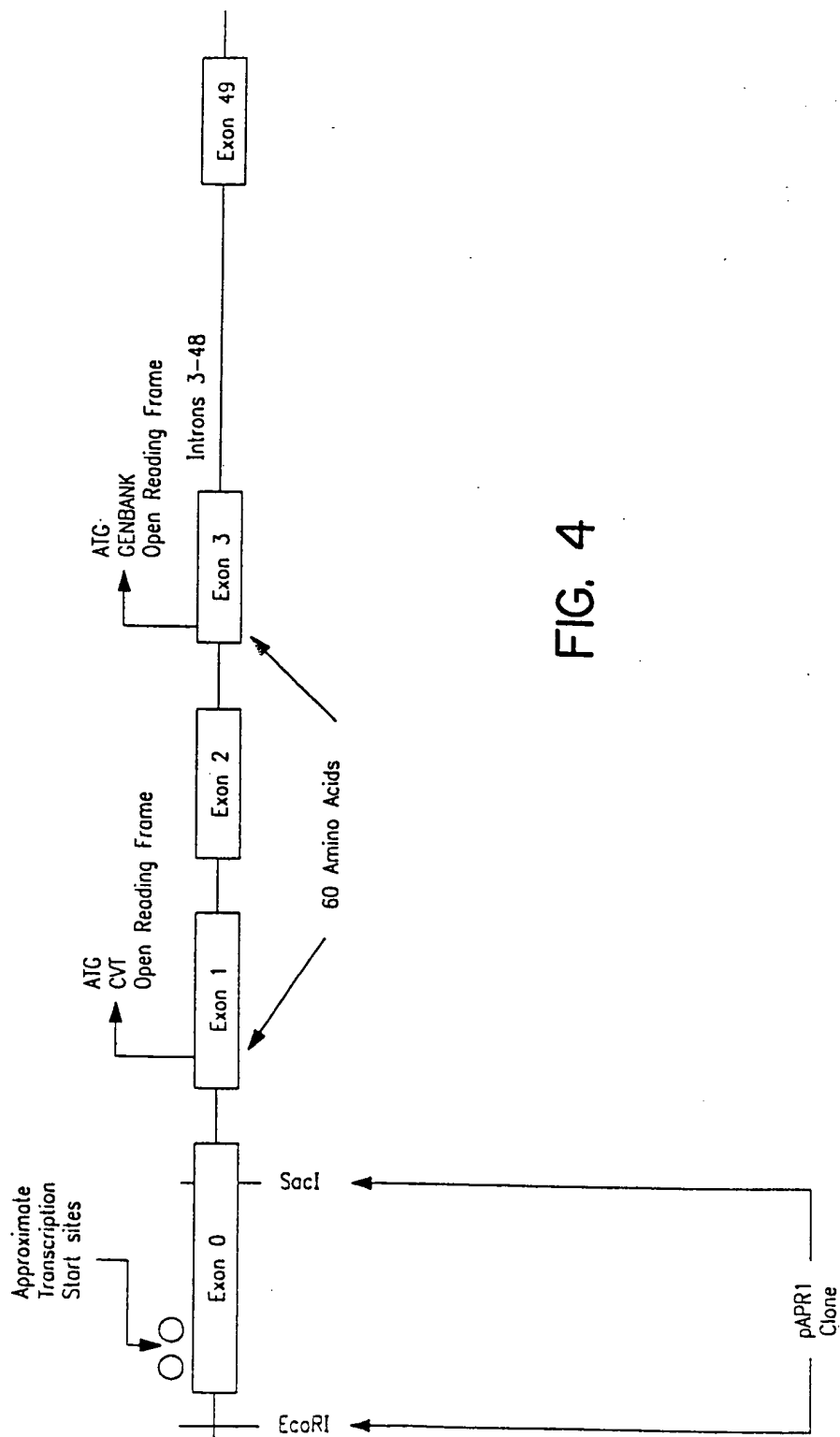


FIG. 4

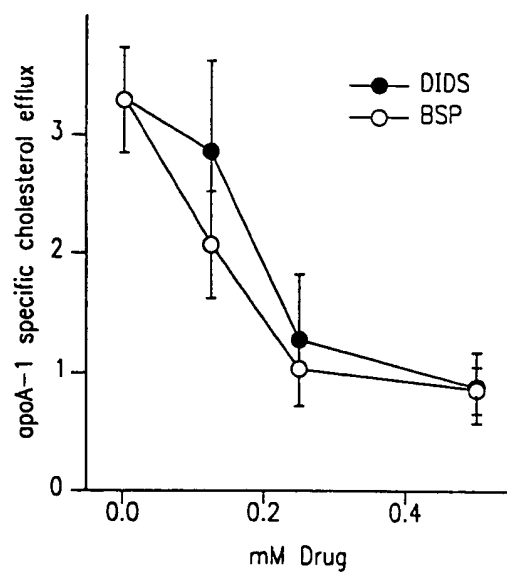


FIG. 5

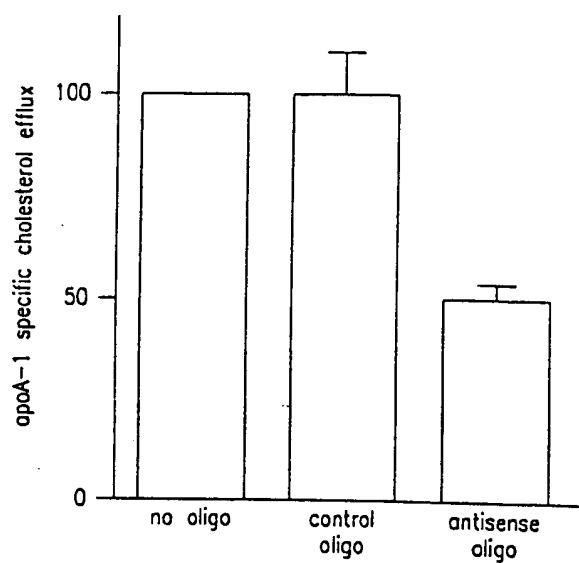


FIG. 6

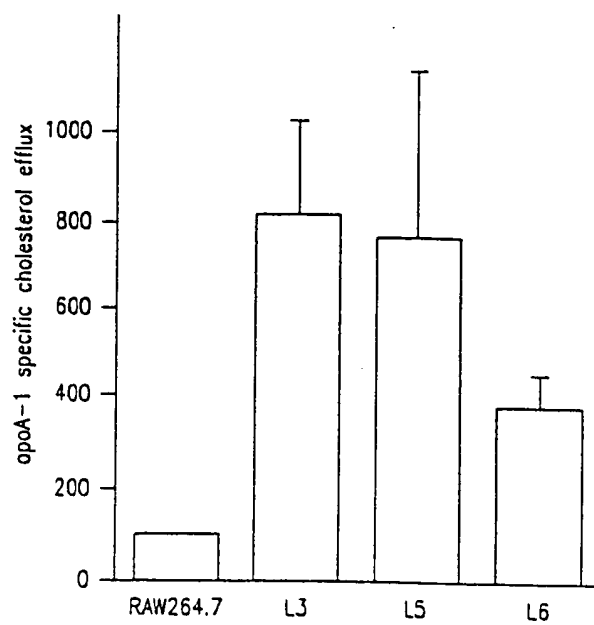


FIG. 7

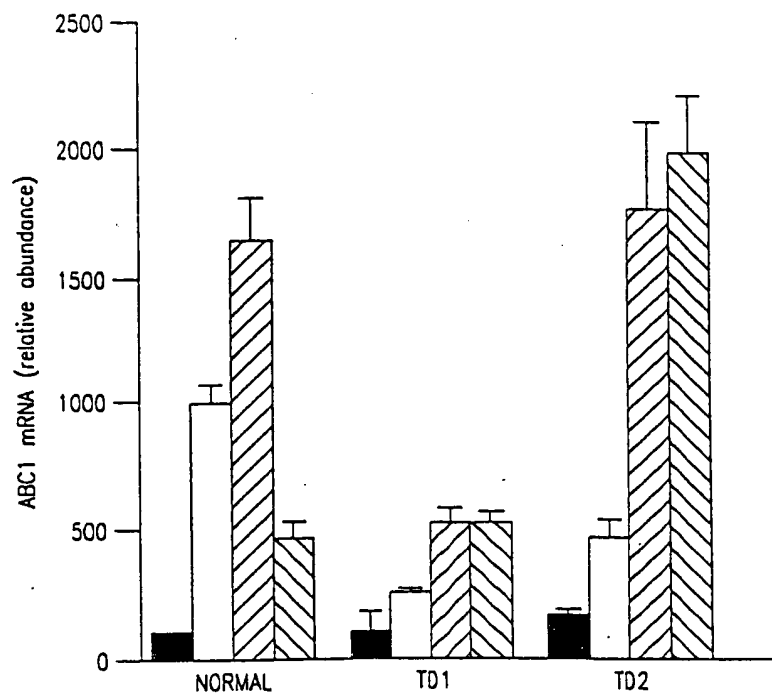


FIG. 8

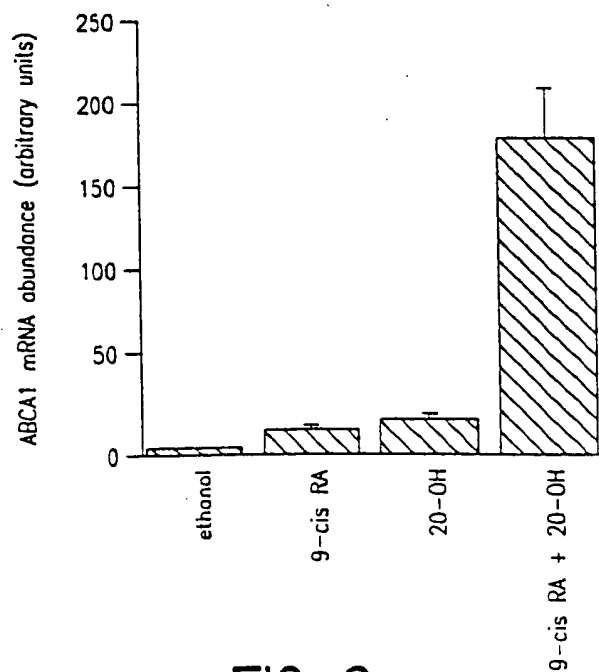


FIG. 9

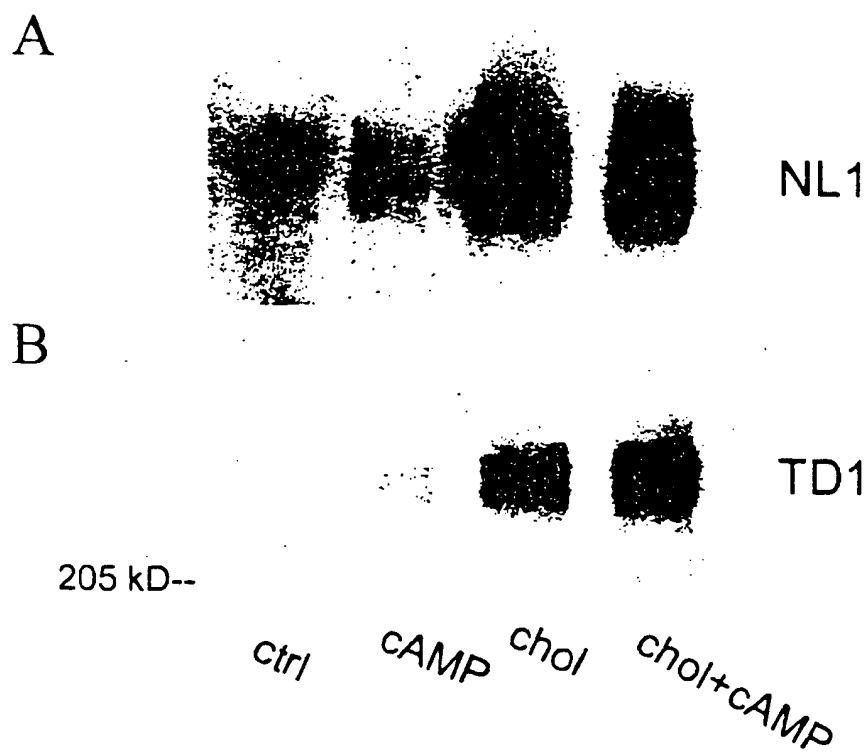


Fig. 10

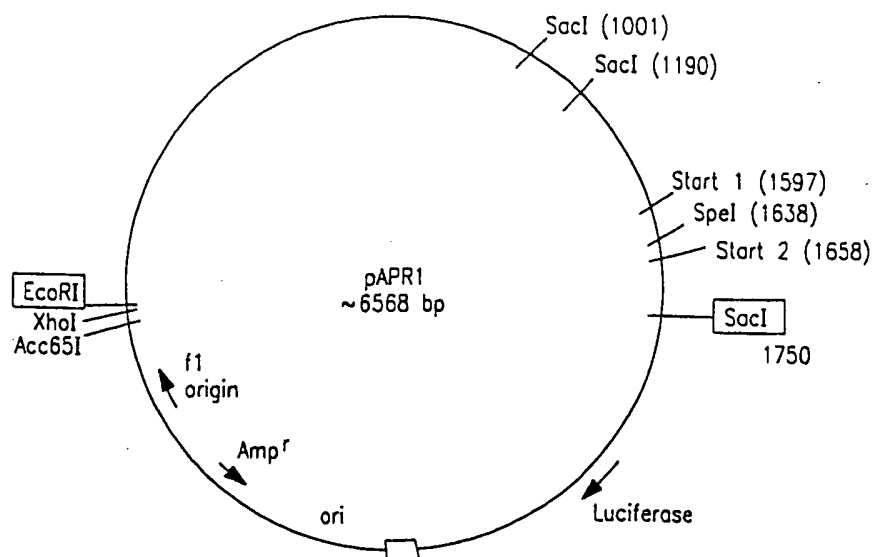


FIG. 11

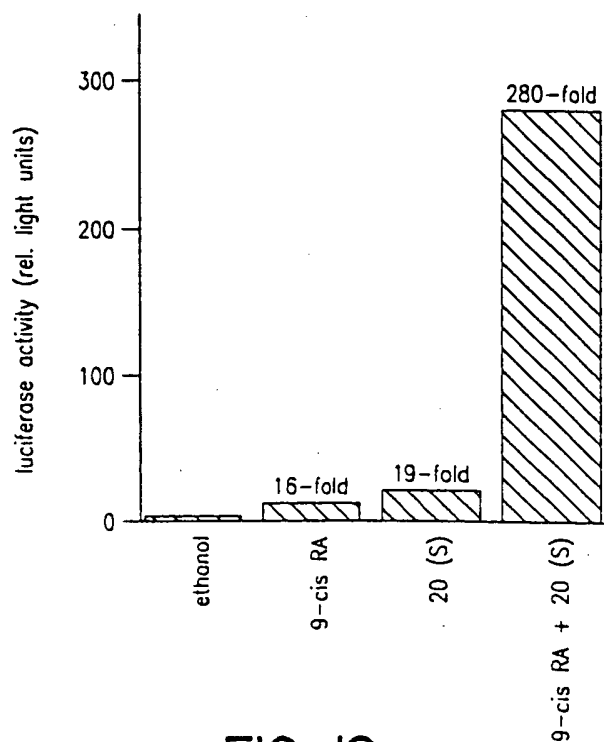
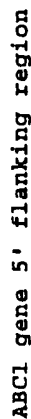


FIG. 12



1 GAAATTCCTTGTGGTGGCTCCACATGCACCTTCCAGGGCCCTGCTTGGCTCTTCTATGGGTCTGTCTCAGTAGTGTGATAGAACCACTGATGTGAGTACCTGG
101 GCTTGAGCGTGGCTGGAGATCCCTGTTGACTGTAGCATGGAGGGGCTTGTCAAGCTGAATGTCTGTATGCAGGTGGTGGGAGTTCTCGGAATATGATGGAG
201 CTGGAGGTGGGAAGAGAGTAGGCTTGGGCGAGCTCTCTCATGCGACCTCATTTCTGGCCAAAACCTCAGGTCAAACCTGTGAAAGAGTCTAAATGTGAATCTG
301 CCCTTCAAGGTGGCTACAAAGGTATCTTTGTCAAGGTAGGAGACCTTGTGGCCCTCACGTGCATTTCCAGGGCCCTGTGGCCCTCTTCTACCGGTCTGTG
401 CTGAGTCTTCTATGAATCTCCCTTCAGGGCAGATTCTATTTAGACTCTTTCACAGTTTGACCTGAGTTTGGCCAGAATAAGGTGACATTTAGTTTGTGTTG
501 GCTTGATGAATGACTTTAAATAATTTAGACATATGTTGTGTAGGCGCTCATTTCCCTACTCTTTGTCCTTTTGGCCCTCAGTGTTTTGGGTAGTTTGTGCT
601 CCCCCACAGCCAAAGGCAACAGATAAGTTGGAGGCTGAGGTGGCTACATAATTTTACACGACTGCATAATCTCTGGCTGCATTCACACAAATGTATATACA
701 AACTAAATACAAGTCCGTGTGTTTTATCACAGGGAGGCTGATCAATATAATGAATAATAAAGGGGCTGGTCCCATATTTGTTCTGTGTTTTTGTGTTGTTT
801 GTTTCCTTTTTTGTGGCCCTCTTCCCTCAATTTATGAAGAGAAGCAGTAAGATGTTCTCTCGGTCTCTGTAGGAGCACTTGGGGAGCTTCAGGC
901 TGGGAATCTCCAAGGCAGTAGTGCCCTATCAAAAATCAAAGTCCAGGTTTGTGGGGGAAAACAAAAGCAGCCCCATTACCCAGAGGACTGTCCGCCCTTC
1001 CCTCACCCAGCCTAGGCCCTTTGAAAGGAAACAAAAGACAAAGACAAAATGATTTGGCGTCTGTAGGAGATTACAGCCTAGAGCTCTCTCTCCCCCAATCC
1101 CTCCCTCCGGCTGAGGAAACTAAACAAAGGAAAAAAAATTTGGGAAAGCAGGATTTAGAGGAAGCAAAATTCACATGGTGCCTTGGCTGCCCGGGAACAGTG
1201 GACTAGAGAGTCTGGCGGCAGCCCGCAGCCCGCTCTCCCGCGCTCTTAGGCCGCGGCCCCGGGGGAGGGGAACGACAGCCCGGACCCCTAA
1301 GACACCTGCTGPACCTTCCACCCCAACCCACCTCCCGCAACTCCCTAGATGTGTCTGTGGCGGCTGAAAGCTCGCCCGTTTAAAGGGGCGGGCCCC
1401 GGCTCCACGTCTTCTGTGAGTGAATGAACTACATAAACAGAGGCCGGGAACGGGGCGGGAGGAGGACACAGGCTTTGACCGGATATGAACTCT
1501 TGGCGCTCGGTGCAGCCGAATCTATAAAGGAACATAGTCCCGGCAAAAAACCCCGTAATTCGAGCGCAGAGTGAAGTGGGGCCGGGACCCGACAGCCGAGCC
601 GACCTTCTCTCCGGGCTGGCGAGGGCAGGGCGGGAGCTC (SEQ ID NO. 3)

→transcription start site

TATA box

☐ nuclear hormone receptor half site☐ LXR response element

~~SP1~~ SP1 site

FIG. 13



MARKED-UP COPY OF FIGURE 13

ABC1 gene 5' flanking region

1 GAATTCCTTGGTGGCTCCACATGCACCTTCAGGGCCCTGCTGGCTCTCTATGGGCTGTCTCCTAGTGTGTATAGAAACCACTGATGTAGTACCTGG
101 GCTTGAGCGTGGCCCTGGAGATCCTGTTGACTGTAGCATGGAGGGGCTTGTGAGCTGAATGCTGTATGCAGGTGGTGGAGTCTCTGGAAATATGATGGAG
201 CTGGAGGTGGAGAGAGTAGGCTTGGGGCAGCTCTCTCATGGCCACCTCATTTCTGGCCAAACACTCAGGTCAAACTGTGAAGAGTCTAAATGTGAATCTG
301 CCTTCAAGGTGGCTACAAAGGTATCTTTGTCAAGGTAGGAGACCTTGTGGCCCTCACGTCACCTTCAGGGCCCTGCTTGGCCTCTTCTACGGGTCTGTC
401 CTGAGTCTTCTATGAATCTCCCTTCAGGGCAGATTCAATATTAGACTCTTTCACAGTTTGACCTGAGTTTGGCCAGAAATAAGGTGACATTTAGTTTGTG
501 GCTTGATGAATGACTTAAATATTAGACATATGGTGTAGGCTGCAATCTCTACTCTTGTGCTTTTGTGCCCCCTCCAGTGTTTTGGGTAGTTTTGTGCT
601 CCCCCACAGCCAAAGGCAACAGATAAGTTGGAGGTCTGGAGTGGCTACATAATTTTACACGACTGCAATTTCTCTGGCTGCACTTCACAAATGTATACA
701 AACTAAATACAAAGTCTCTGTGTTTATACAGGGAGGCTGATCAATATAATGAATTAAGAGGGGCTGGTCCCATATTTCTGTGTTTGTGTTTGTGTT
801 GTTCTCTTTTGTGTTTGTGGCTCTCTCTCAATTTATGAAGAGAGCAGTAAGATGTTCTCTCGGGTCTCTGAGGGACCTGGGAGCTCAGGC
901 TGGGAATCTCAAGGAGTAGGTGCTCTATCAAAAATCAAAAGTCCAGGTTTGTGGGGGAAACAAAGCAGCCCATTTACCCAGAGGACTGTCGCCCTTC
1001 CCTCACCCAGCCTAGGCCCTTTGAAAGGAACAAAGACACAAATGATTTGCGCTCTGAGGGAGATTTCAGCCCTAGAGCTCTCTCTCCCCCAATCC
1101 CTCCCTCCGGCTGAGGAACTTAACAAAGGAAAGGAAATTTGCGGAAAGCAGGATTTAGAGGAAGCAAAATCCACTGTTGCCCTTGGCTGCCGGAAACGTG
1201 GACTAGAGAGTCTGCGGCGCAGGCCCGAGCCAGGCTTCCCGCGGTCTTAGCCCGCGGGCCCGGGGGGAGGGGACGAGACCCGCGGACCCCTAA
1301 GACACCTGCTGTACCTTCTGCTGAGTGAATGTTGAGTGTGTTGGCGGCTGAACGTGCTGCTGTTTAAAGGGCGGGGGCC
1401 GGCTCCACGTGCTTCTGCTGAGTGAATGAACTACATAAACAAGAGCCCGGAAACGGGGCGGGAGGAGGGAGAGCAGAGCTTTGACCCGATAGTAACCTTC
1501 TGGGCTTGGGTGAGCCGAATCTATAAAGGAACCTAGTCCCGGCAAAACCCCGTAAATTCGAGCGAGAGTGAAGTGGGGCGGGGACCCCGCAGAGCCGAGCC
1601 GACCTTCTCTCCGGGCTGCGGAGGGGAGGGGGGGGAGCTC (SEQ ID NO. 3)

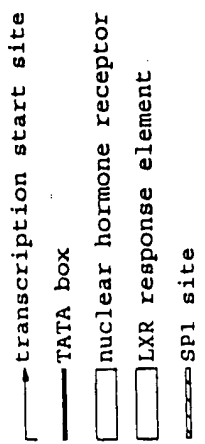


FIG. 13